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(71) Applicants (for all designated States except US): ALL INDIA INSTITUTE OF MEDICAL SCIENCES [IN/IN]; Division of Clinical Microbiology, Dept. of Laboratory Medicine, Ansari Nagar, NEW DELHI 110029 (IN). DEPARTMENT OF BIOTECHNOLOGY [IN/IN]; Department of Govt of India, CGO Complex, Lodhi Road, New Delhi 110003 (IN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SINGH, Sarman [IN/IN]; Dept. of Laboratory Medicinc, All India Institute of Medical Sciences, Ansari Nagar, New Delhi 110029 (IN). SHARMA, Pawan [IN/IN]; International Centre of Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi 110 029 (IN).

(74) Agents: LAKSHMIKUMARAN, Varadharchari et al.; Lakshmikumaran & Sridharan, B-6/10, Safdarjung Enclave, New Delhi 110029 (IN).

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(54) Title: METHODS FOR DETECTION OF MYCOBACTERIUM TUBERCULOSIS

(57) Abstract: The present invention provides an oligonucleotide primer pair having SEQ ID NO: 3 and SEQ ID NO: 4 for amplification of Early Secretory Antigenic Target (esat)-6-gene of Mycobacterium species. The invention also provides a method for detecting *M. tuberculosis* in a sample based on the amplification of esat-6 gene, comprising isolating DNA template from the sample, amplifying with the above oligonucleotide primer pair and subjecting the amplified DNA product to separation and staining to detect the presence of amplified DNA product for identifying *Mycobacterium tuberculosis* in the sample. The invention further provides a diagnostic kit for detection of *Mycobacterium tuberculosis*. The invention also provides a method of detecting *Mycobacterium tuberculosis* from a sample by amplifying the 16s rRNA region from the isolated DNA template by conventional methods to detect *Mycobacterium* species and further amplifying the positive sample contains *Mycobacterium* species using primers positive for ESAT-6 region: detection of *Mycobacterium tuberculosis*.

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